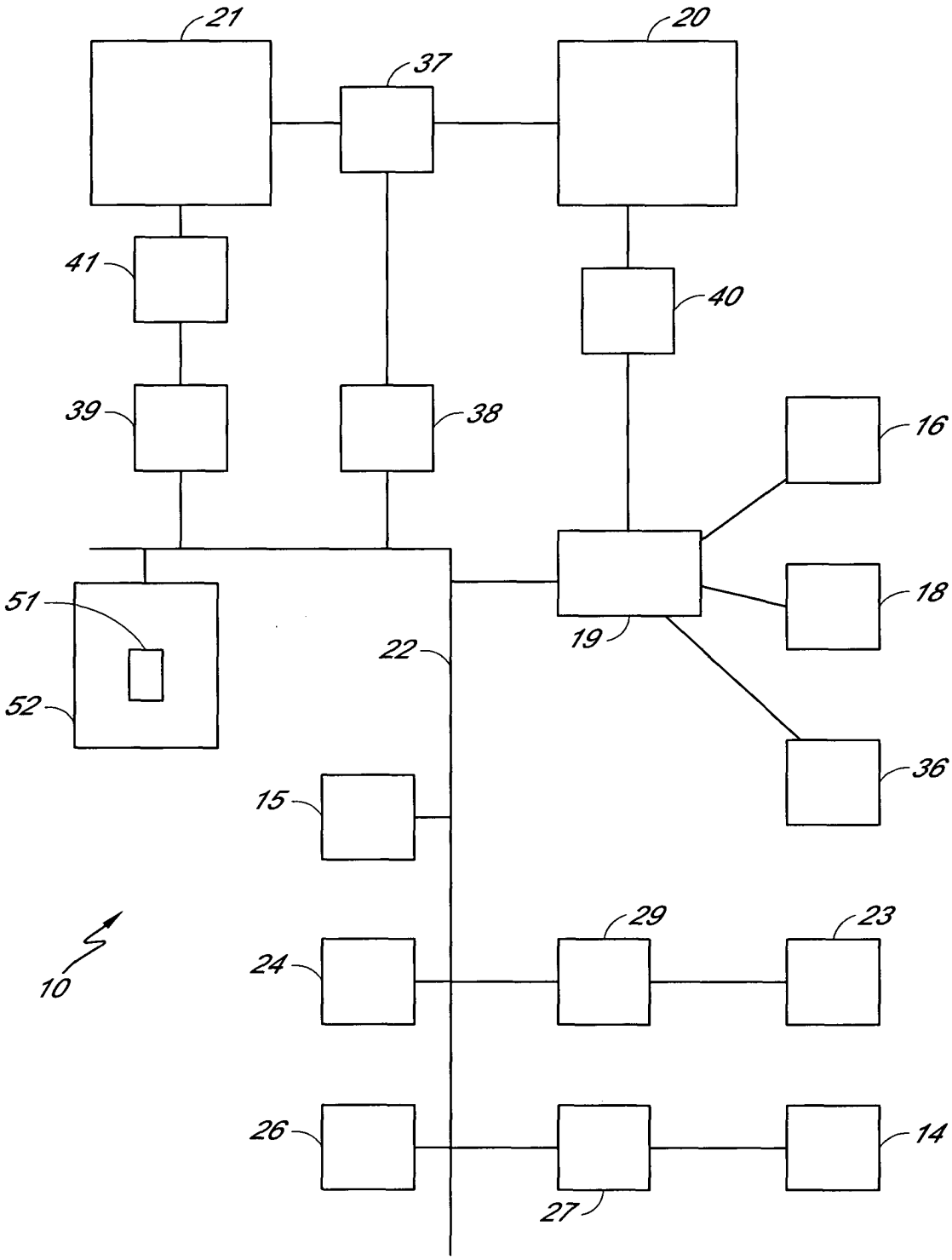


FIG. 1

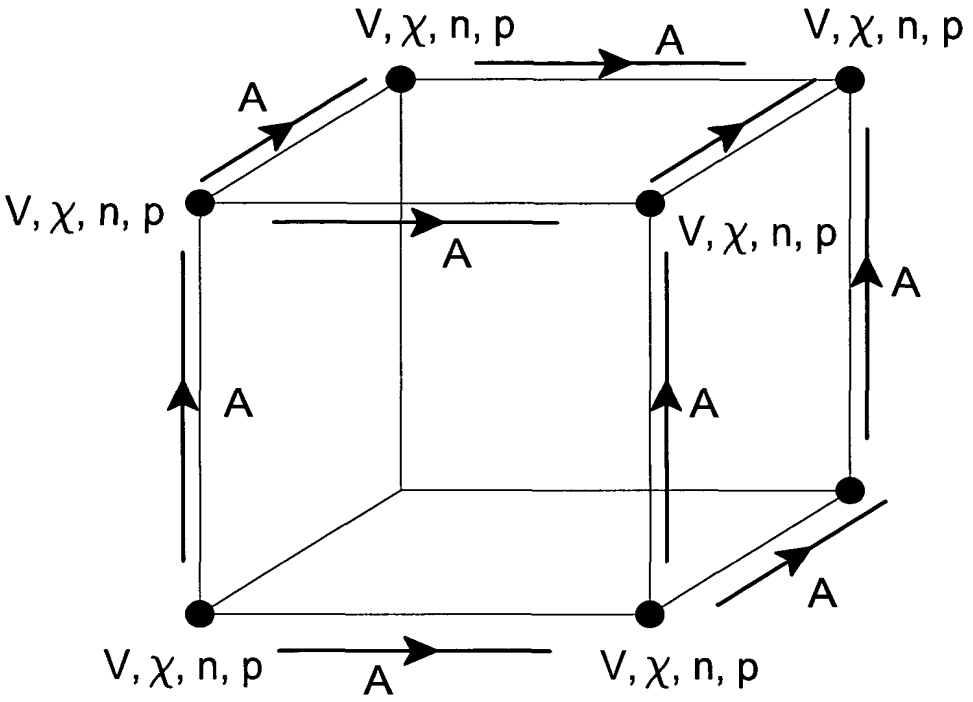


FIG. 2

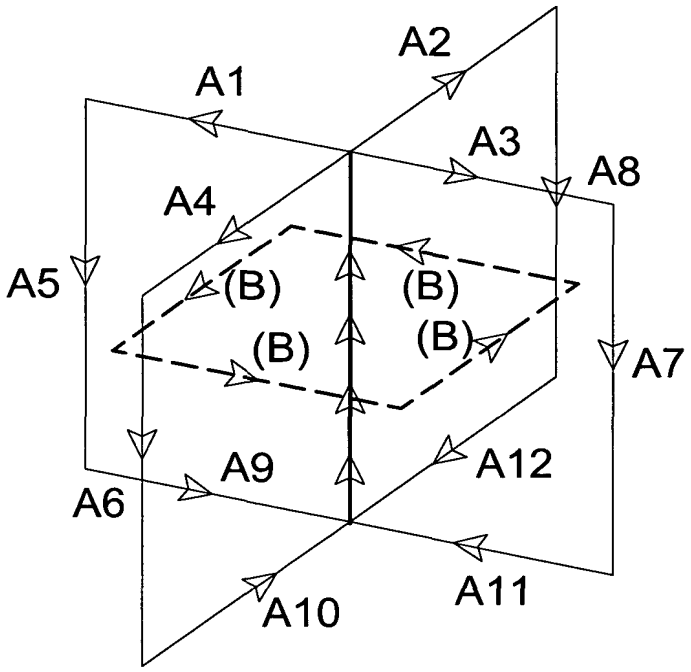

A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
(B)
(B)
(B)
(B)

FIG. 3

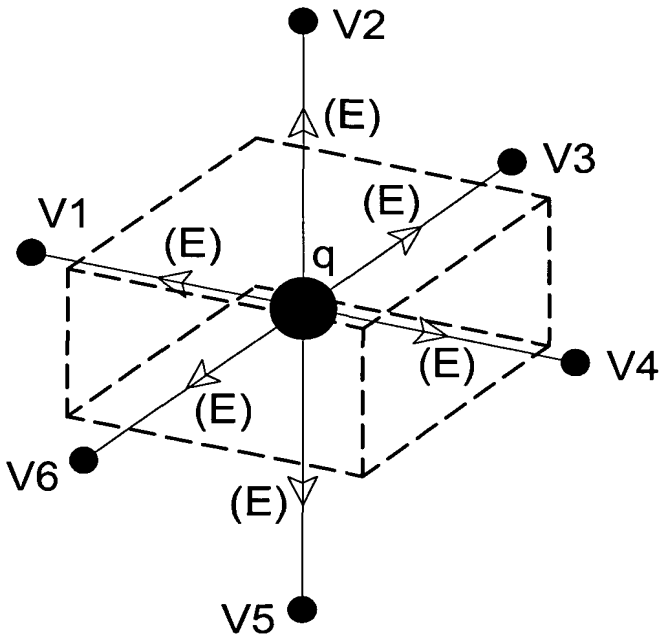

V1
V2
V3
V4
V5
V6
q
(E)
(E)
(E)
(E)
(E)
(E)

FIG. 4

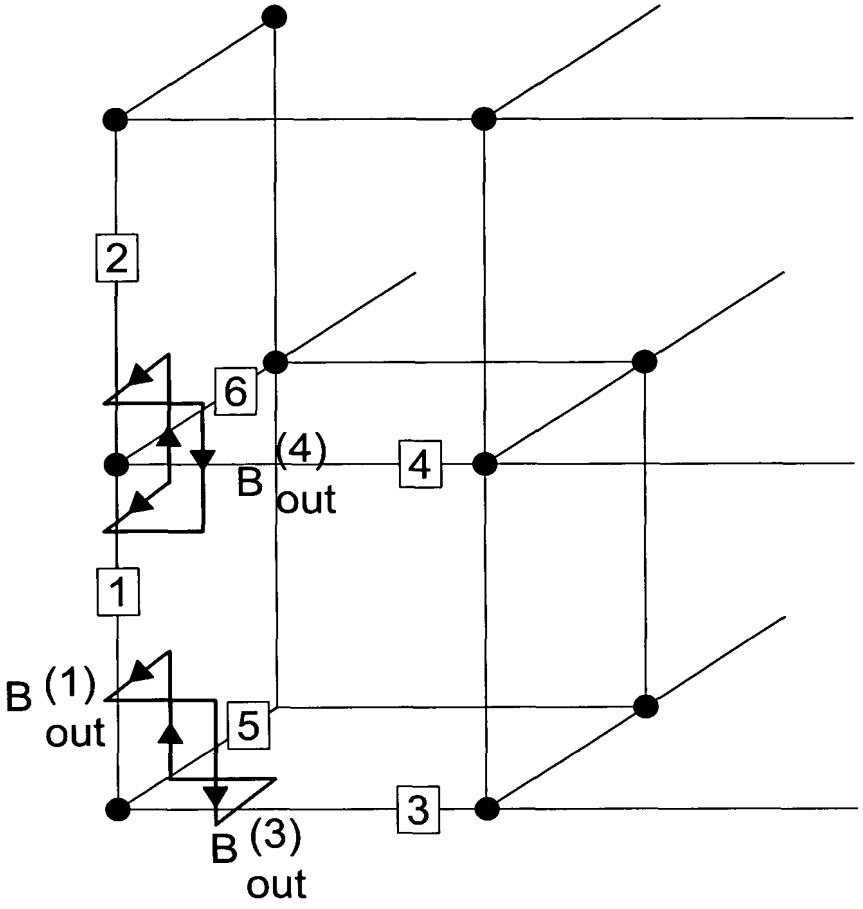

2
6
(4)
B out
4
1
B (1) out
5
3
B (3) out

FIG. 5A

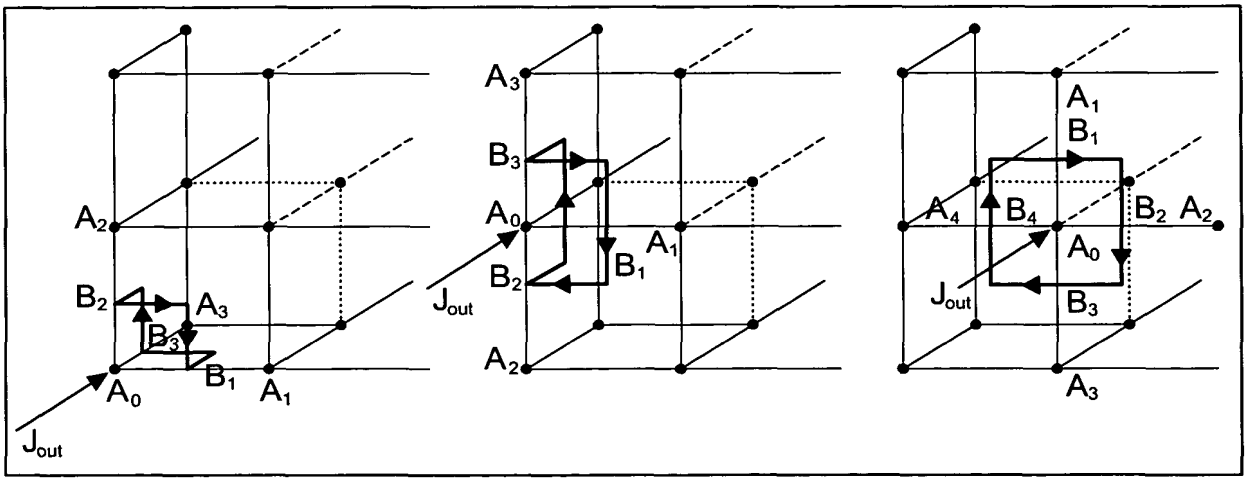

A2
B2
A3
B3
A0
B1
A1
Jout
A3
B3
A0
B2
A1
B1
A2
Jout
A1
B1
A4
B4
B2 A2
A0
Jout
B3
A3

FIG. 5B

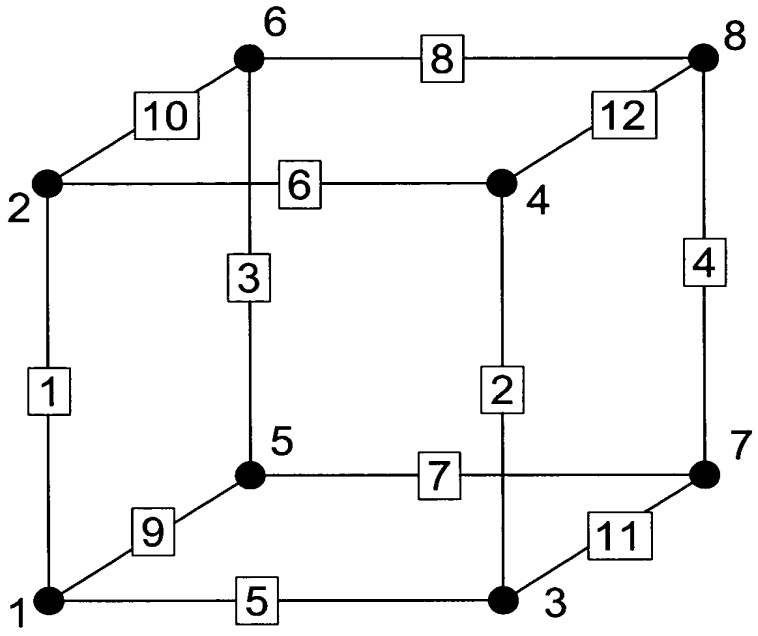


FIG. 6

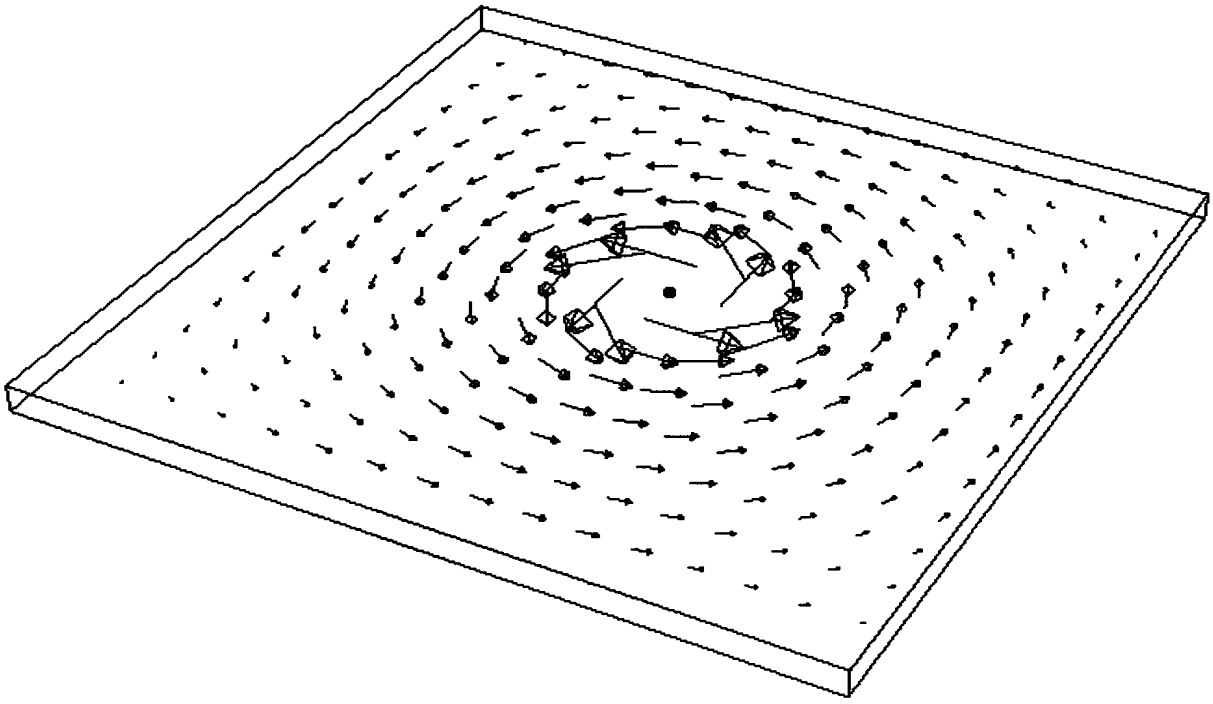


FIG. 7

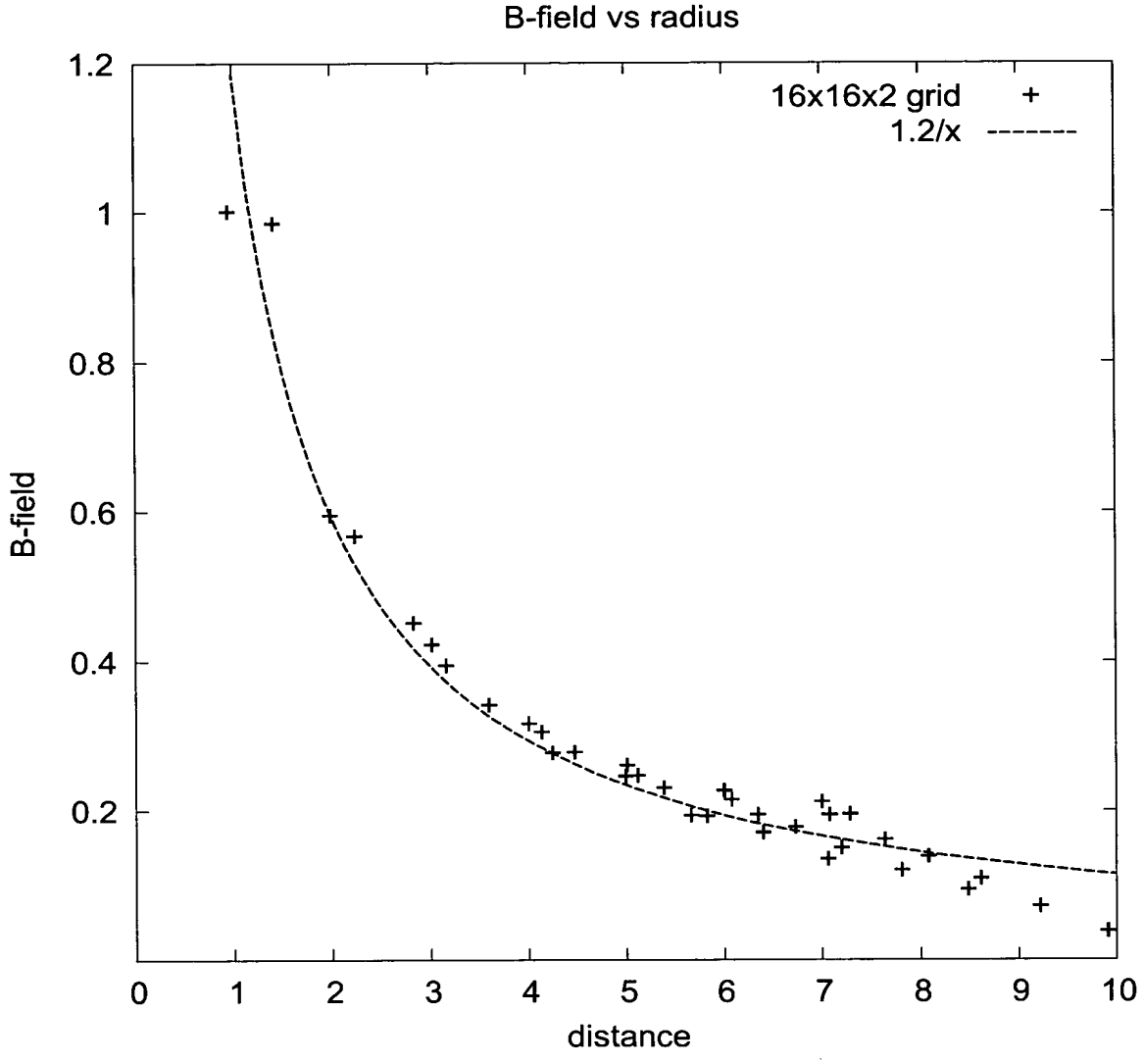

B-field vs radius
16x16x2 grid +
1.2/x
B-field
distance
1.2
1
0.8
0.6
0.4
0.2
0
1
2
3
4
5
6
7
8
9
10

FIG. 8

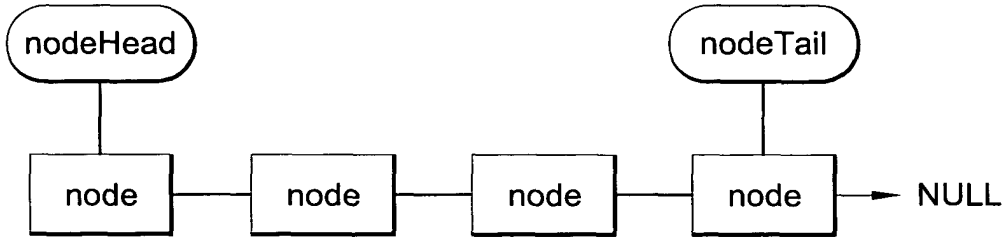


FIG. 9

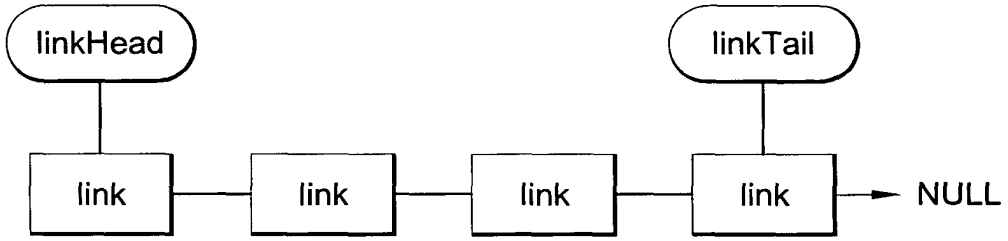


FIG. 10

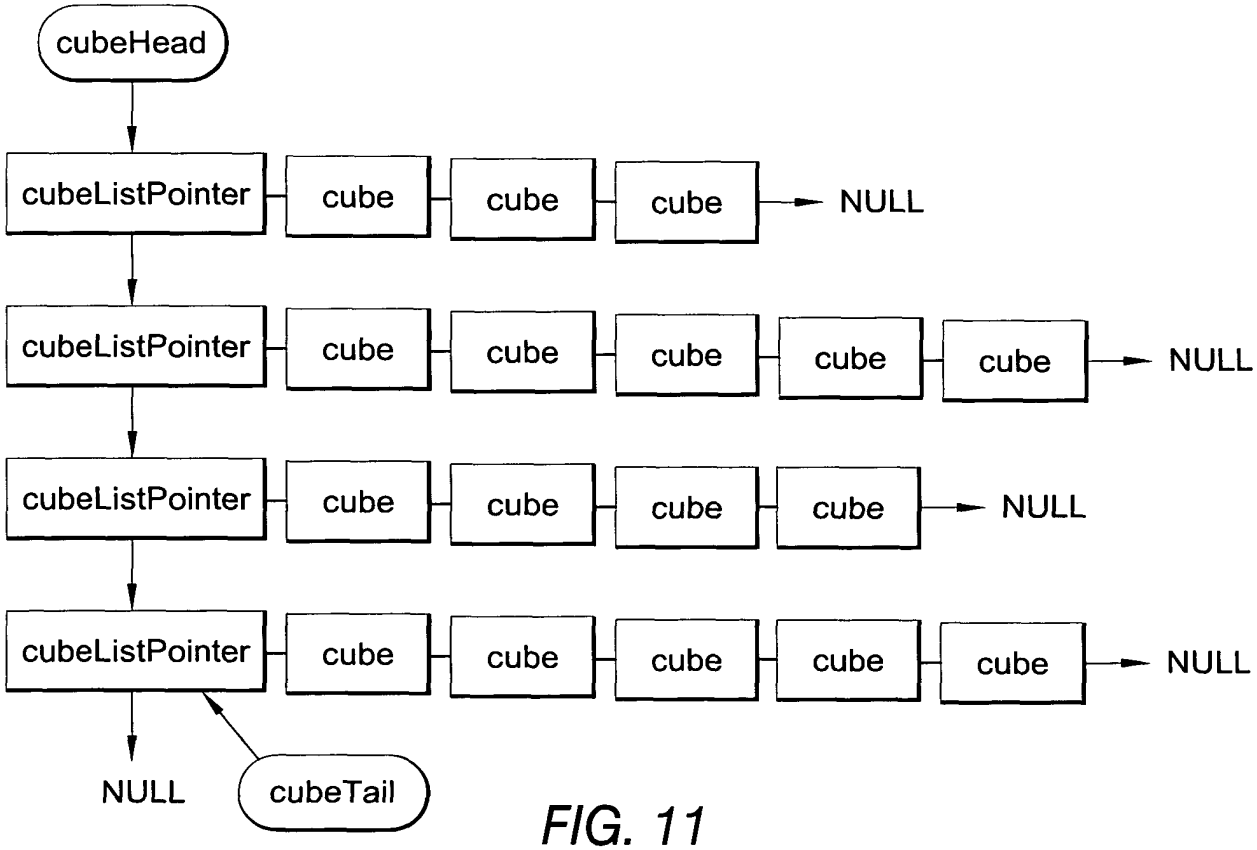


FIG. 11

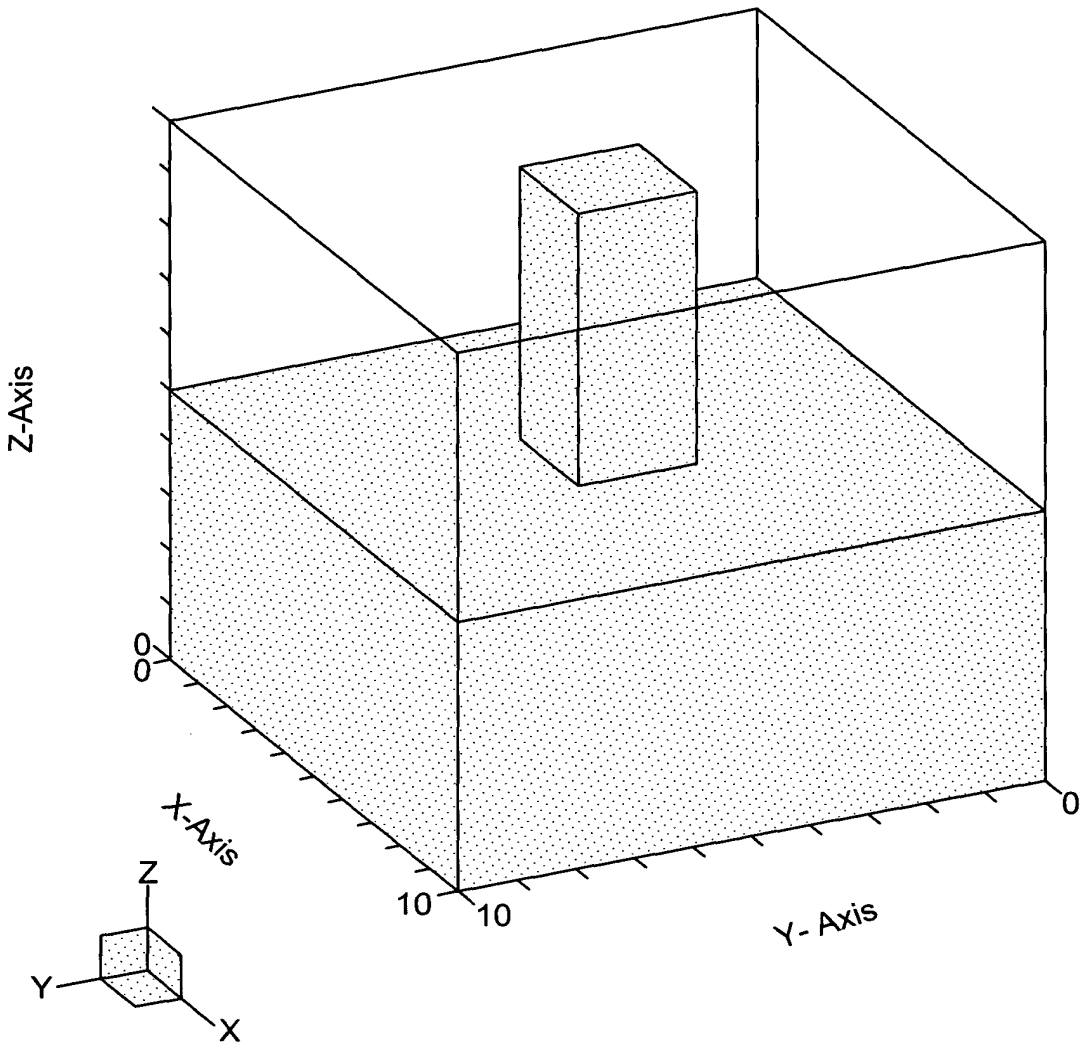


FIG. 12

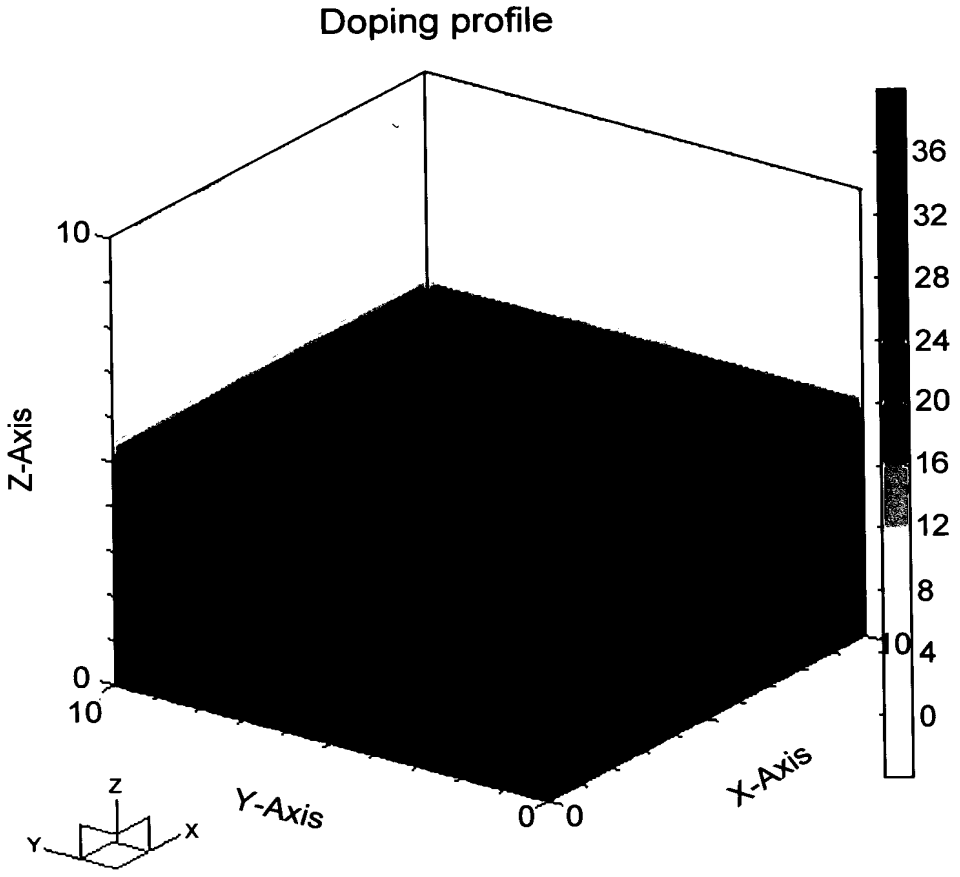

Doping profile
Z-Axis
10
0
10
Y-Axis
0
0
X-Axis
36
32
28
24
20
16
12
8
4
0
Z
Y
X

FIG. 13

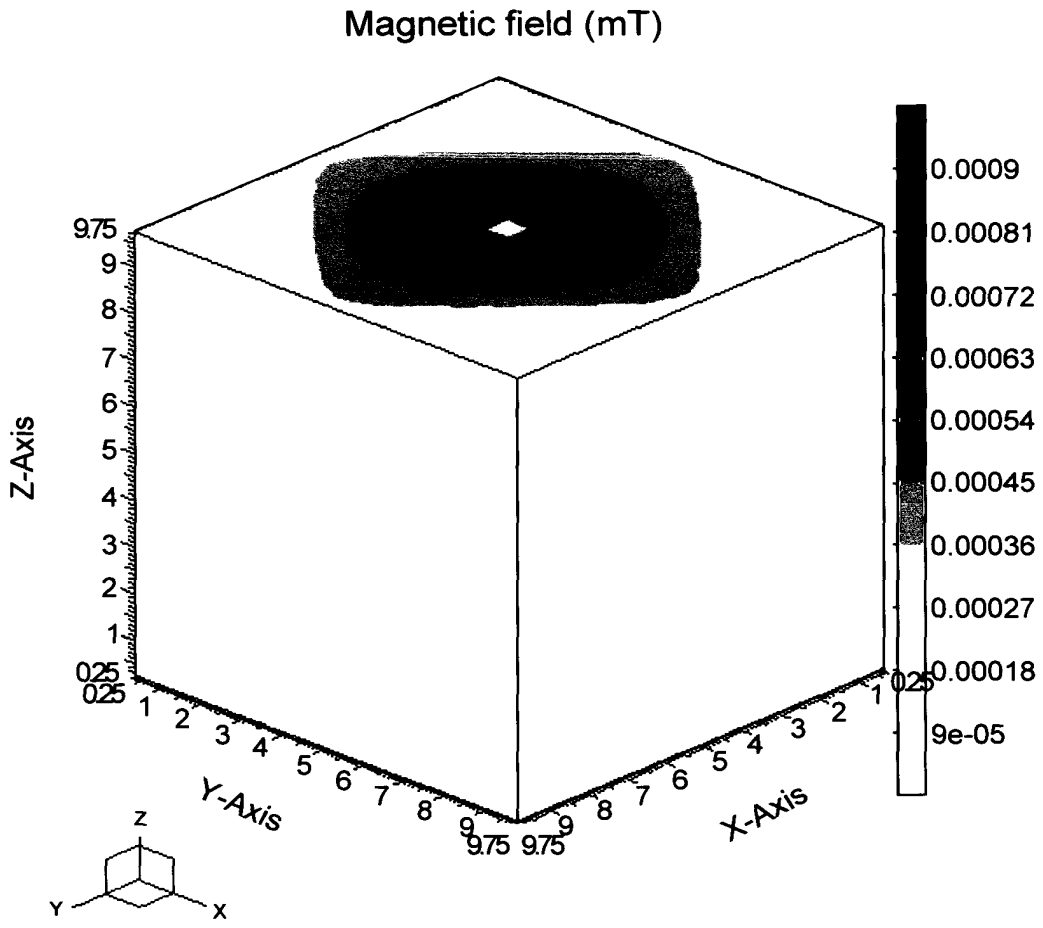

Magnetic field (mT)
0.0009
0.00081
0.00072
0.00063
0.00054
0.00045
0.00036
0.00027
0.00018
9e-05
Z-Axis
Y-Axis
X-Axis
Z
Y
X

FIG. 14

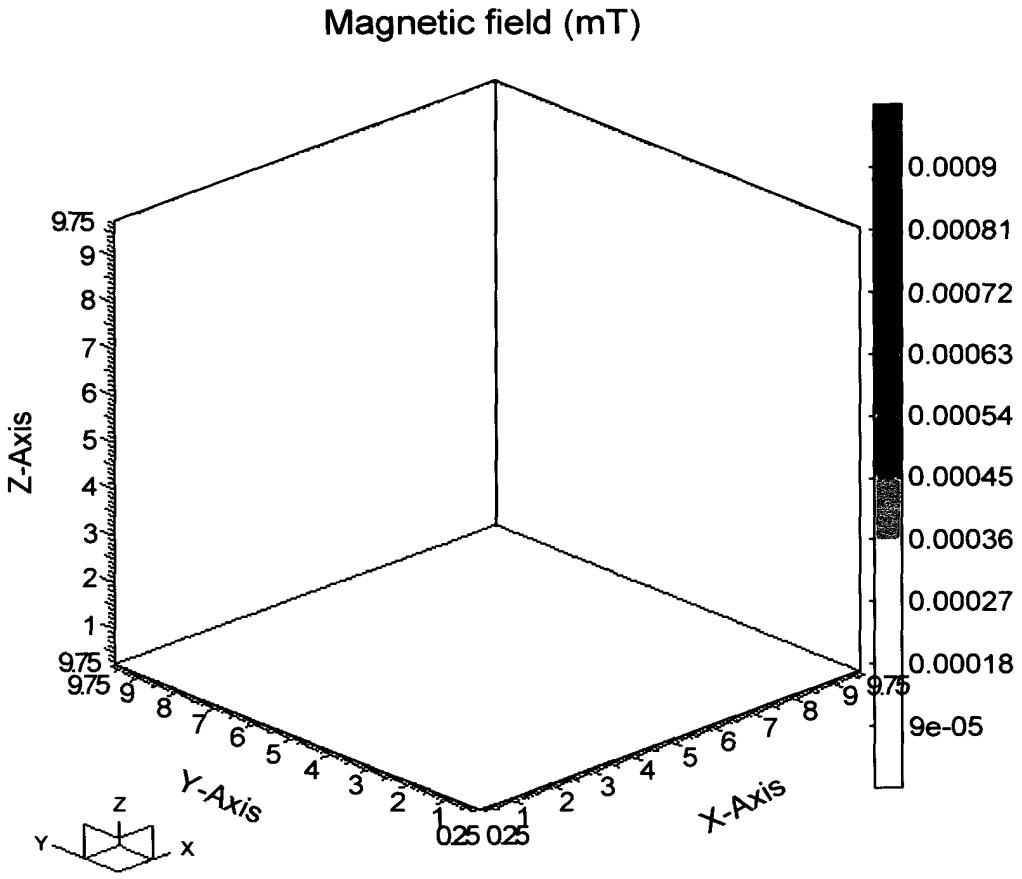

Magnetic field (mT)
0.0009
0.00081
0.00072
0.00063
0.00054
0.00045
0.00036
0.00027
0.00018
9e-05
Z-Axis
Y-Axis
X-Axis
9.75
9
8
7
6
5
4
3
2
1
0.25
Z
Y
X

FIG. 15

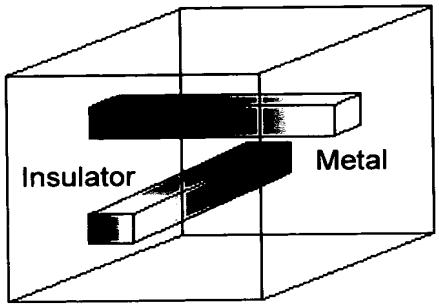


FIG. 16

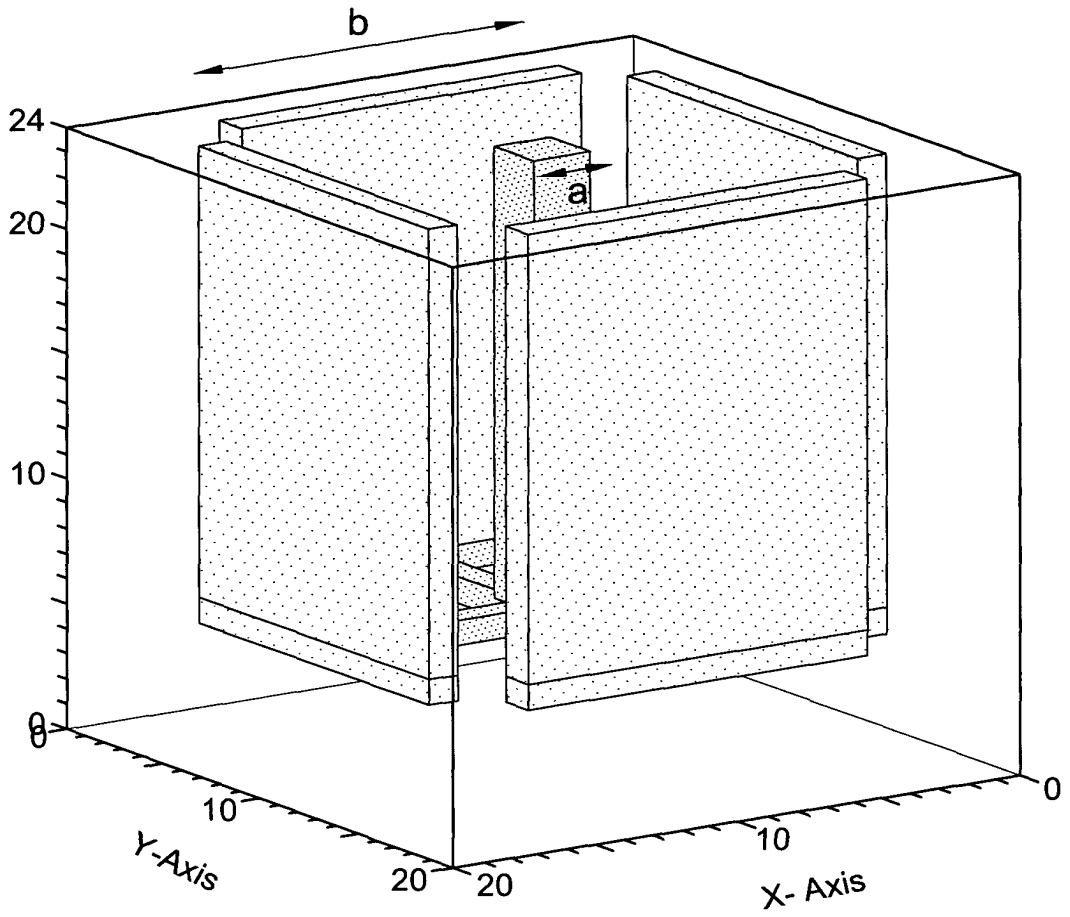


FIG. 17

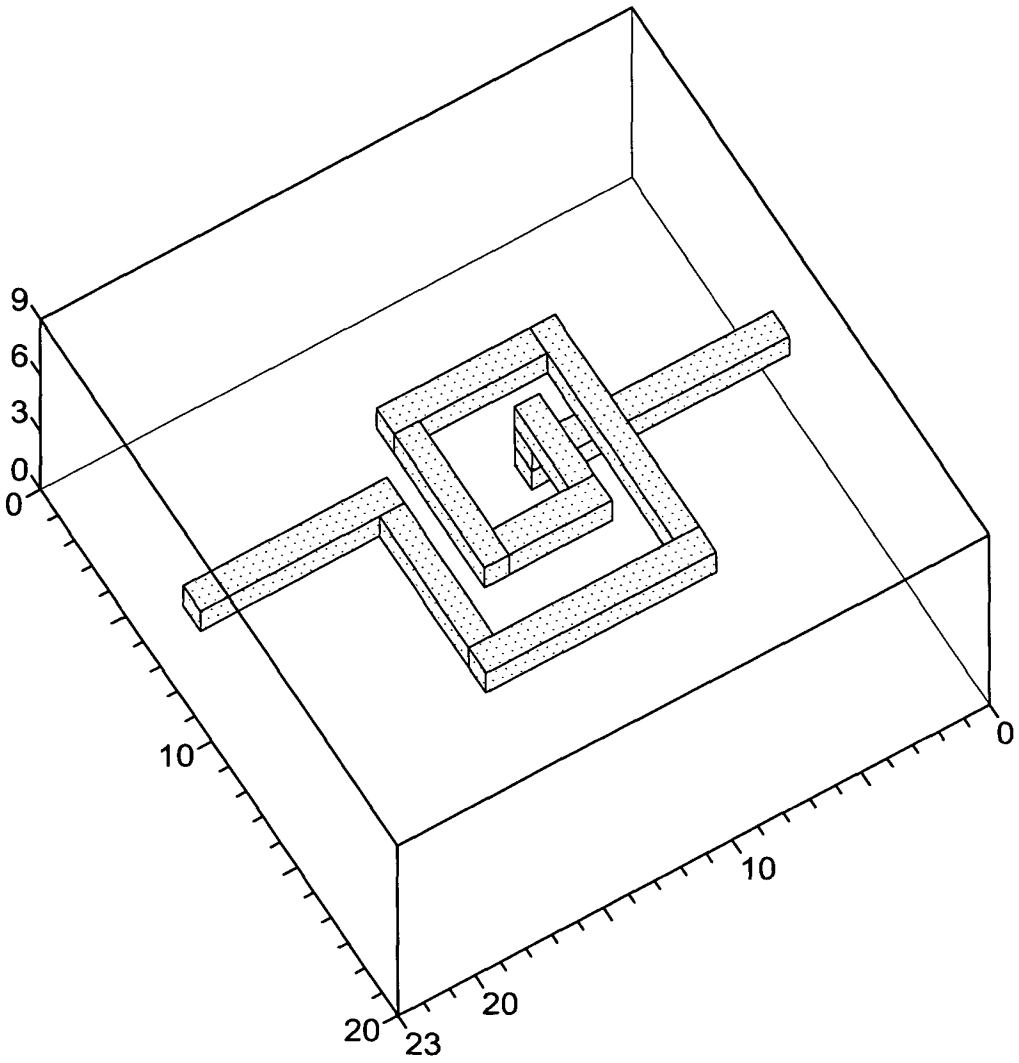


FIG. 18

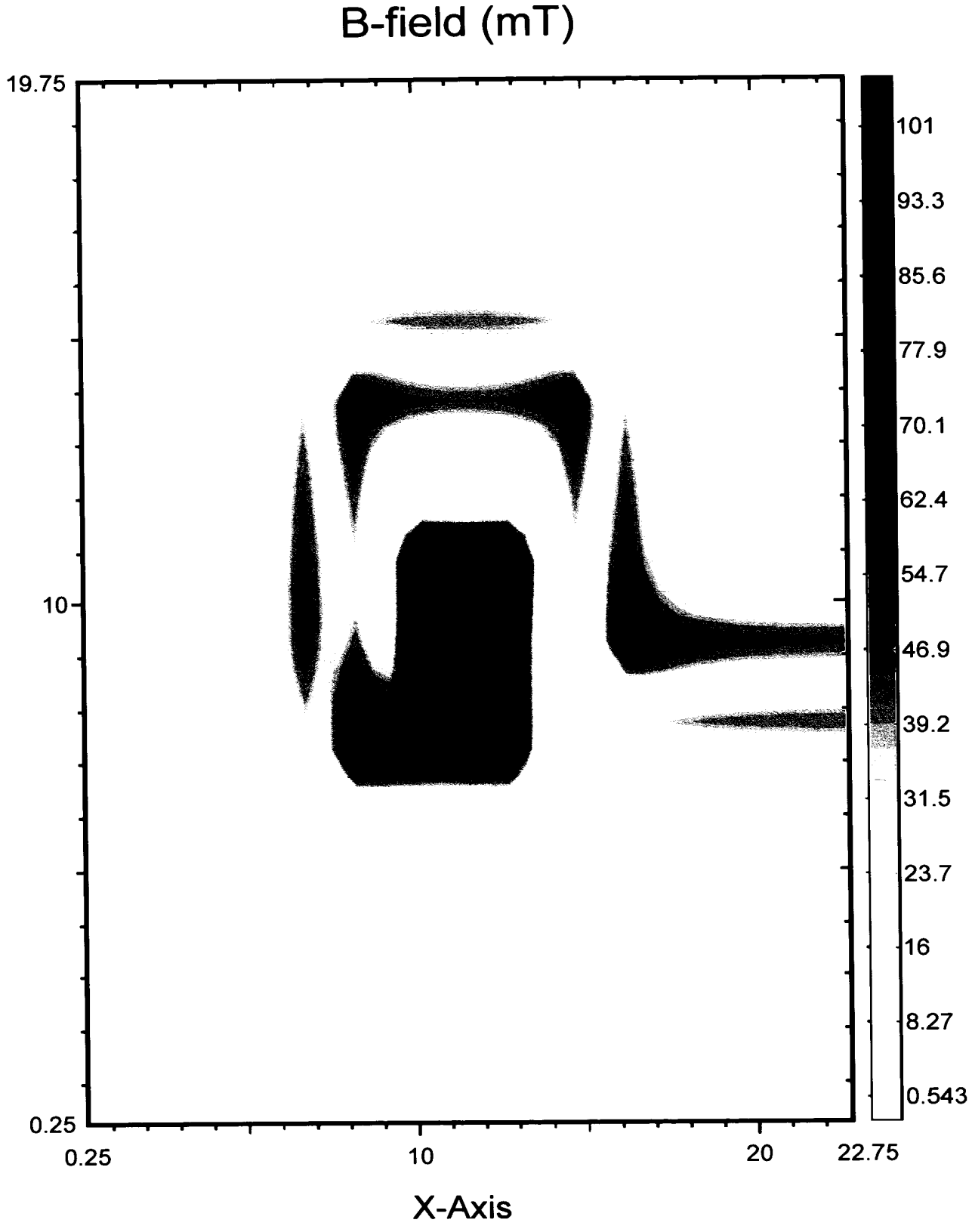

B-field (mT)
19.75
10
0.25
0.25
10
20
22.75
X-Axis
101
93.3
85.6
77.9
70.1
62.4
54.7
46.9
39.2
31.5
23.7
16
8.27
0.543

FIG. 19

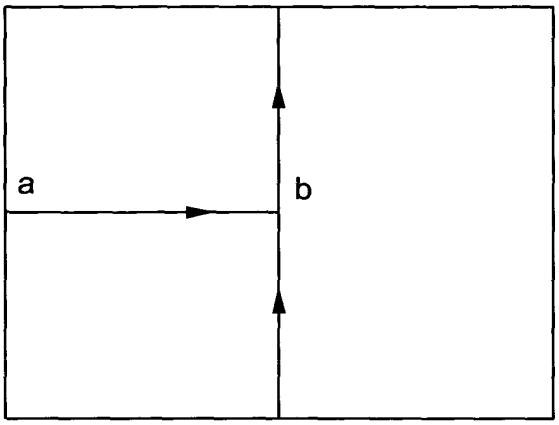


FIG. 20A

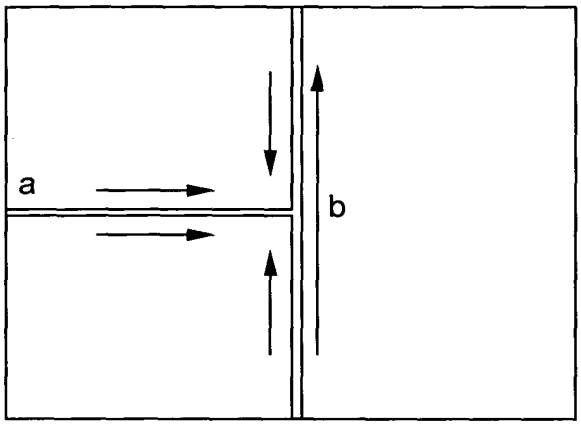


FIG. 20B

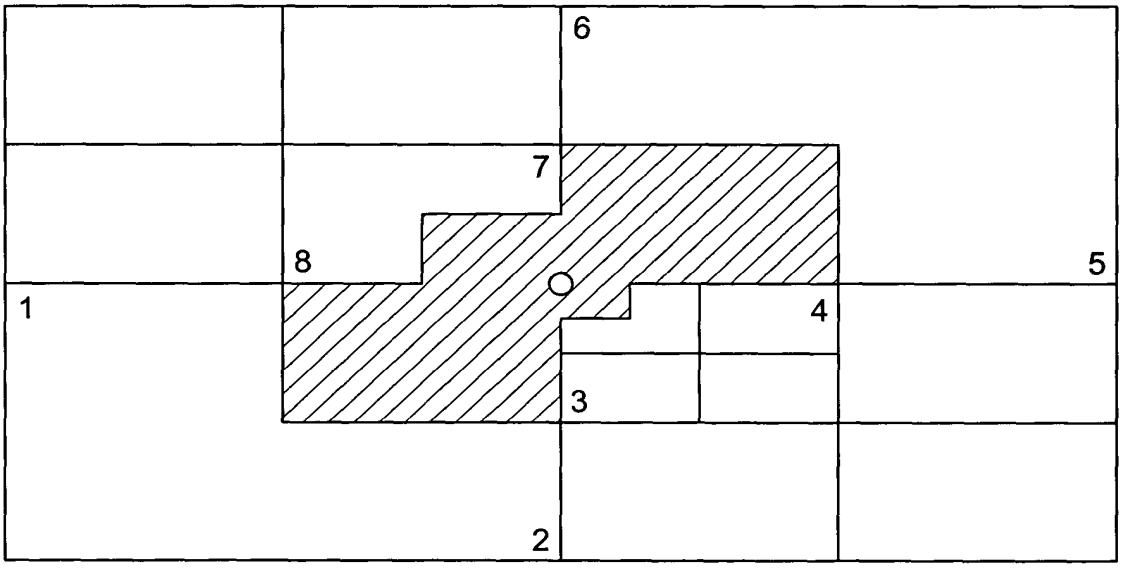


FIG. 21

FIG. 22A

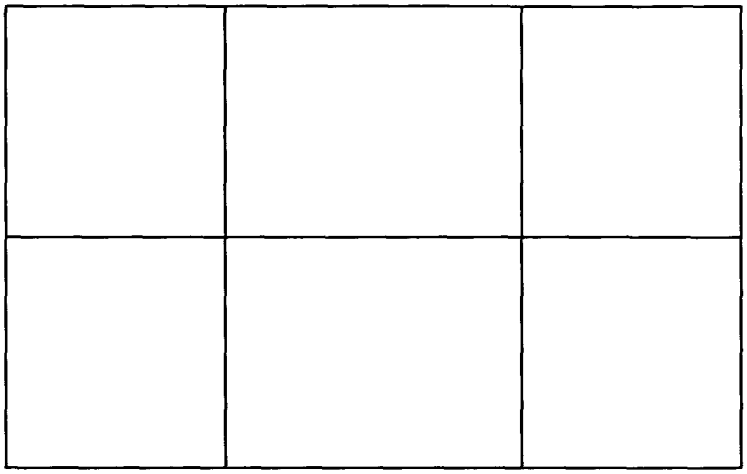


FIG. 22B

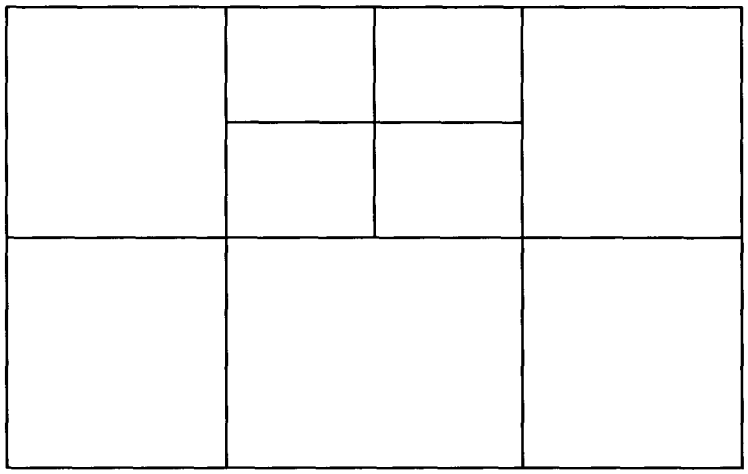
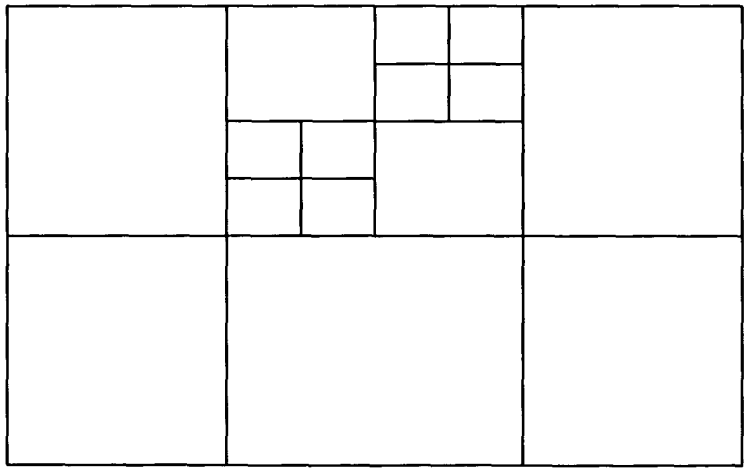


FIG. 22C



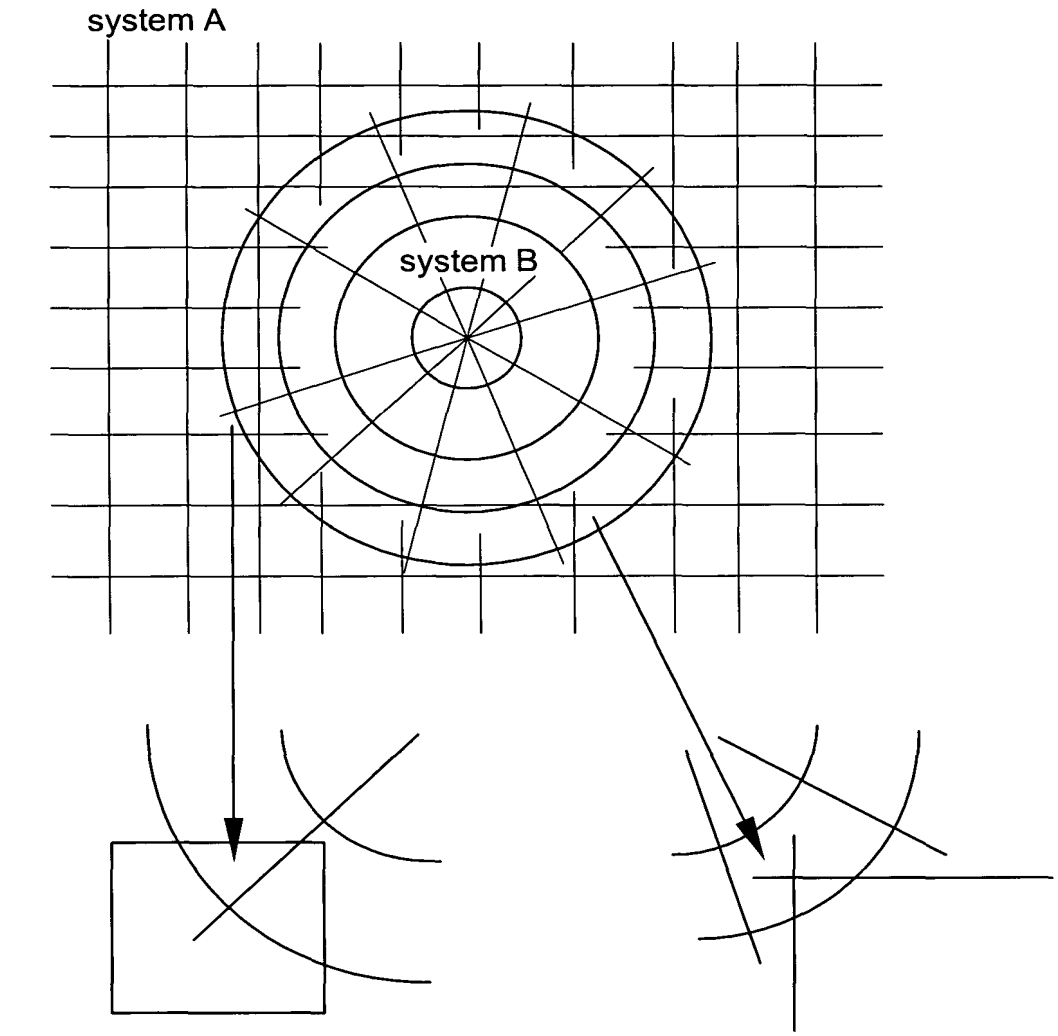

system A
system B
mesh transition from B to A
mesh transition from A to B

FIG. 23

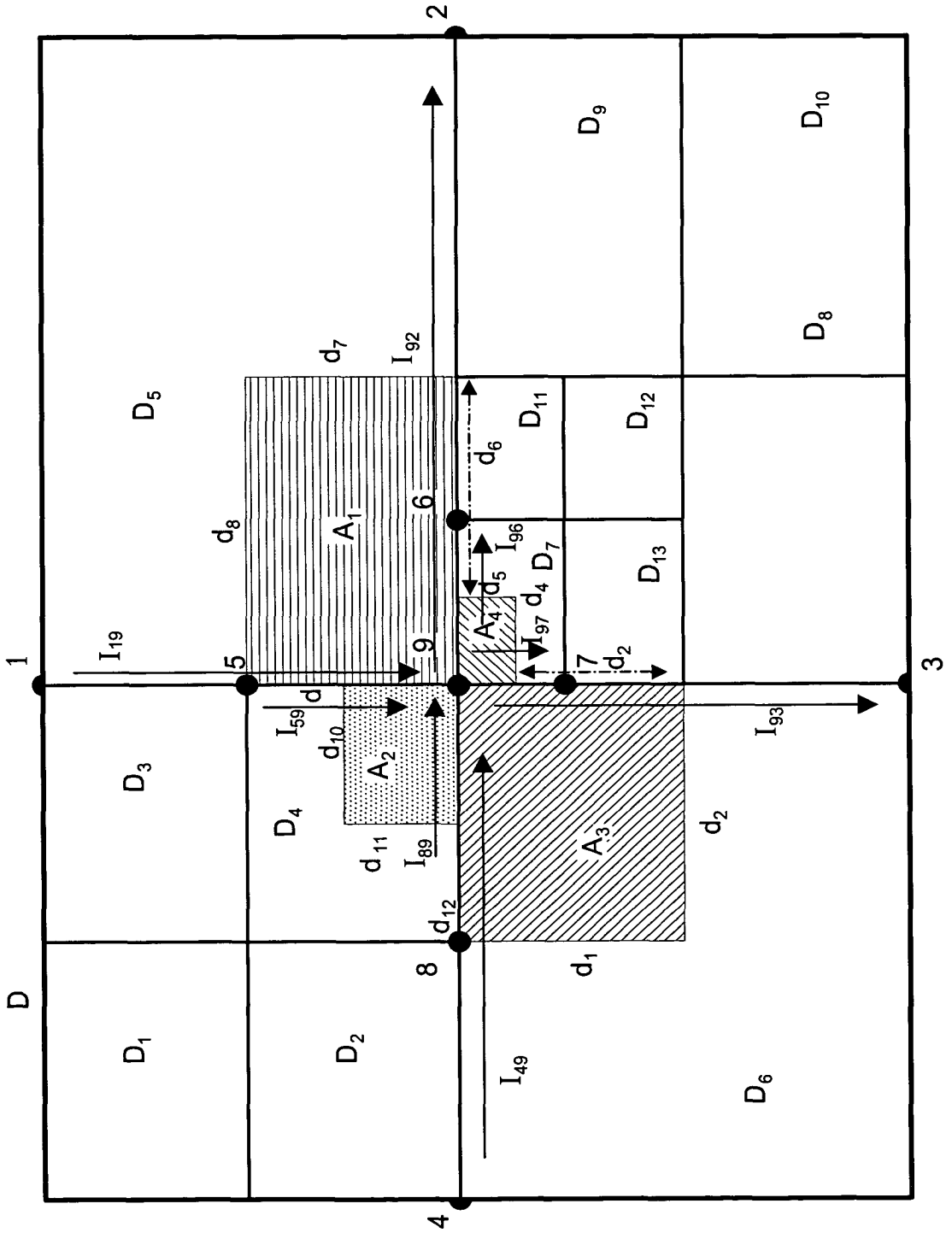

1
2
3
4
5
6
7
8
9
D
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
A1
A2
A3
A4
d
d1
d2
d4
d5
d6
d7
d8
d10
d11
d12
I19
I59
I89
I92
I93
I96
I97
I49

FIG. 24

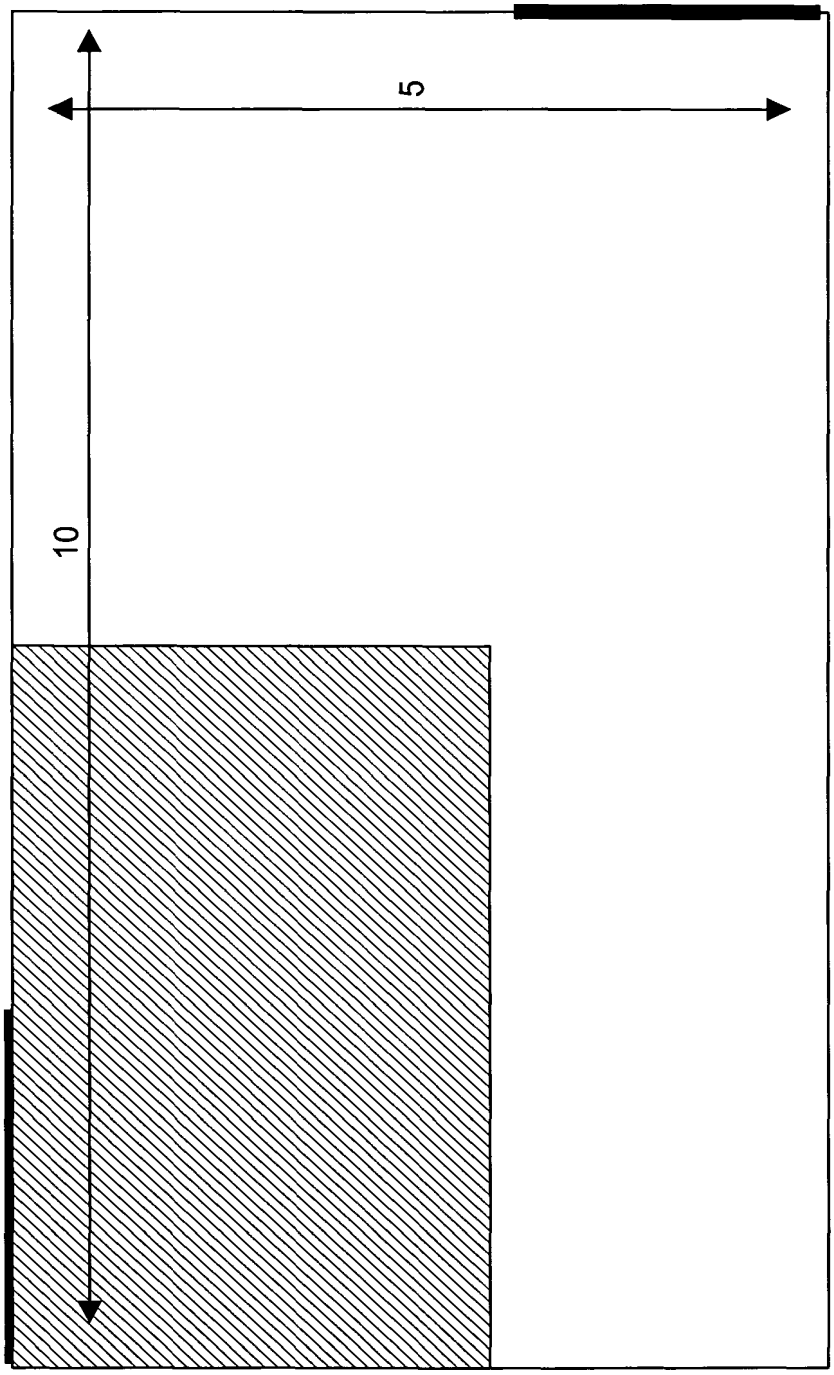


FIG. 25

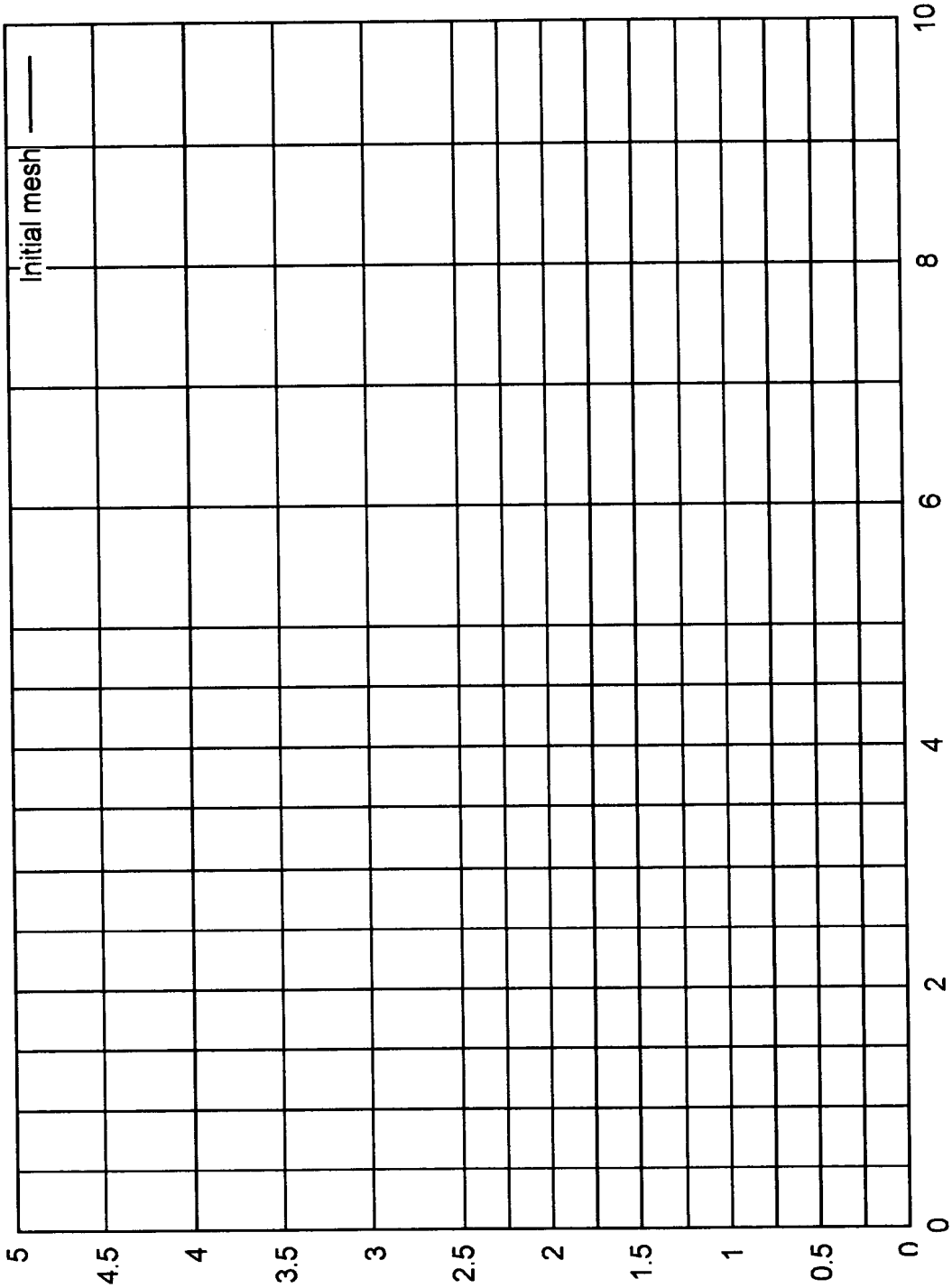


FIG. 26

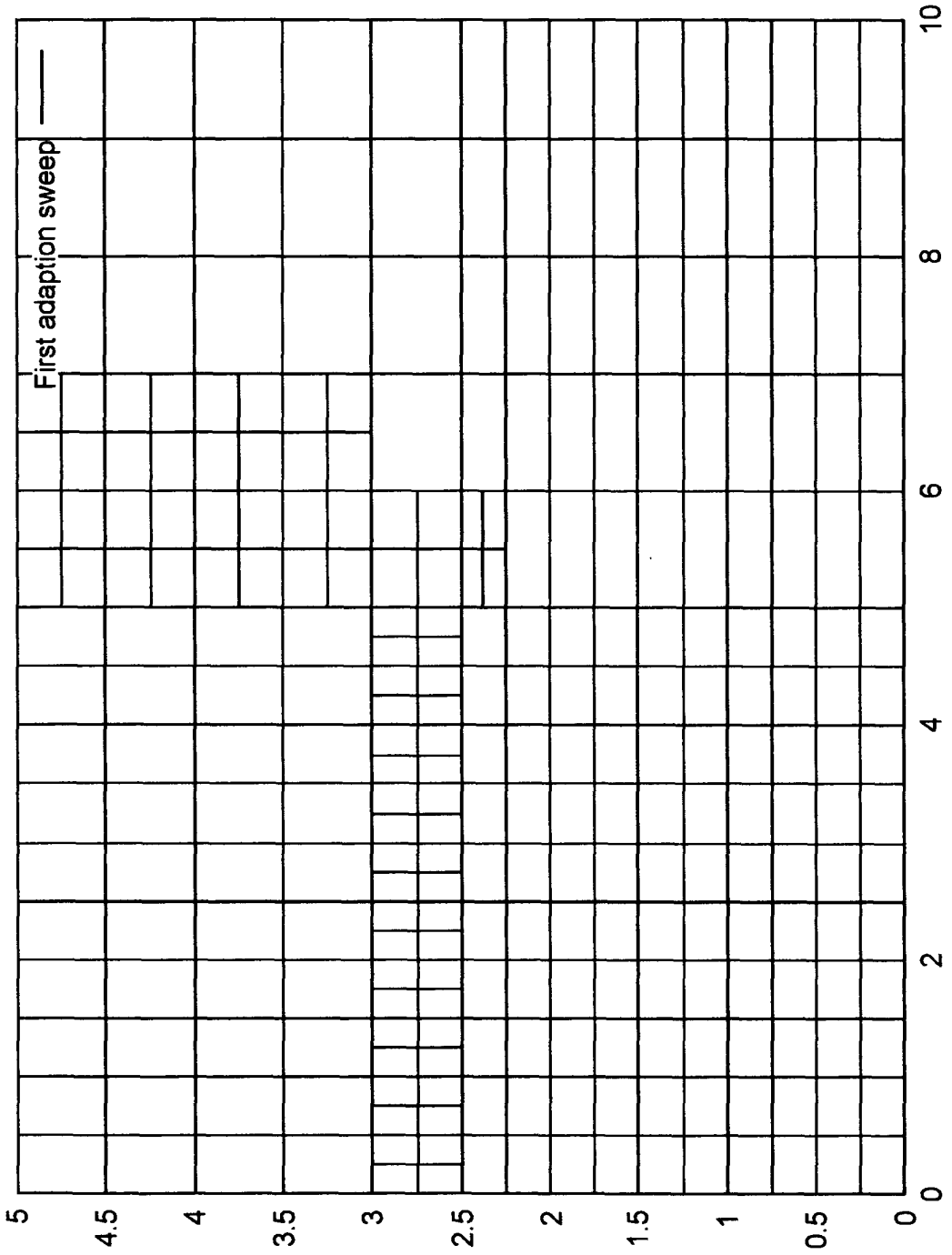


FIG. 27

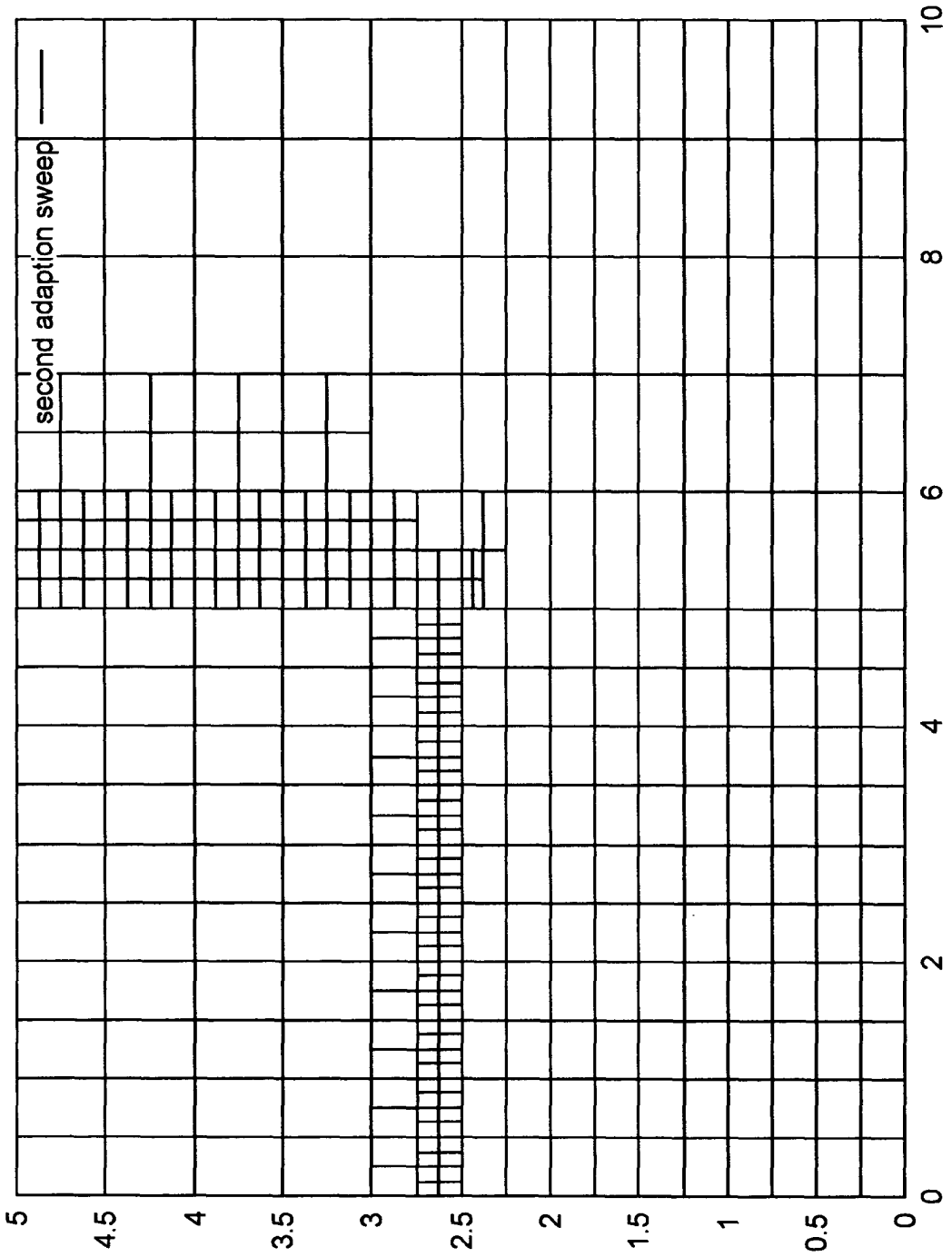


FIG. 28

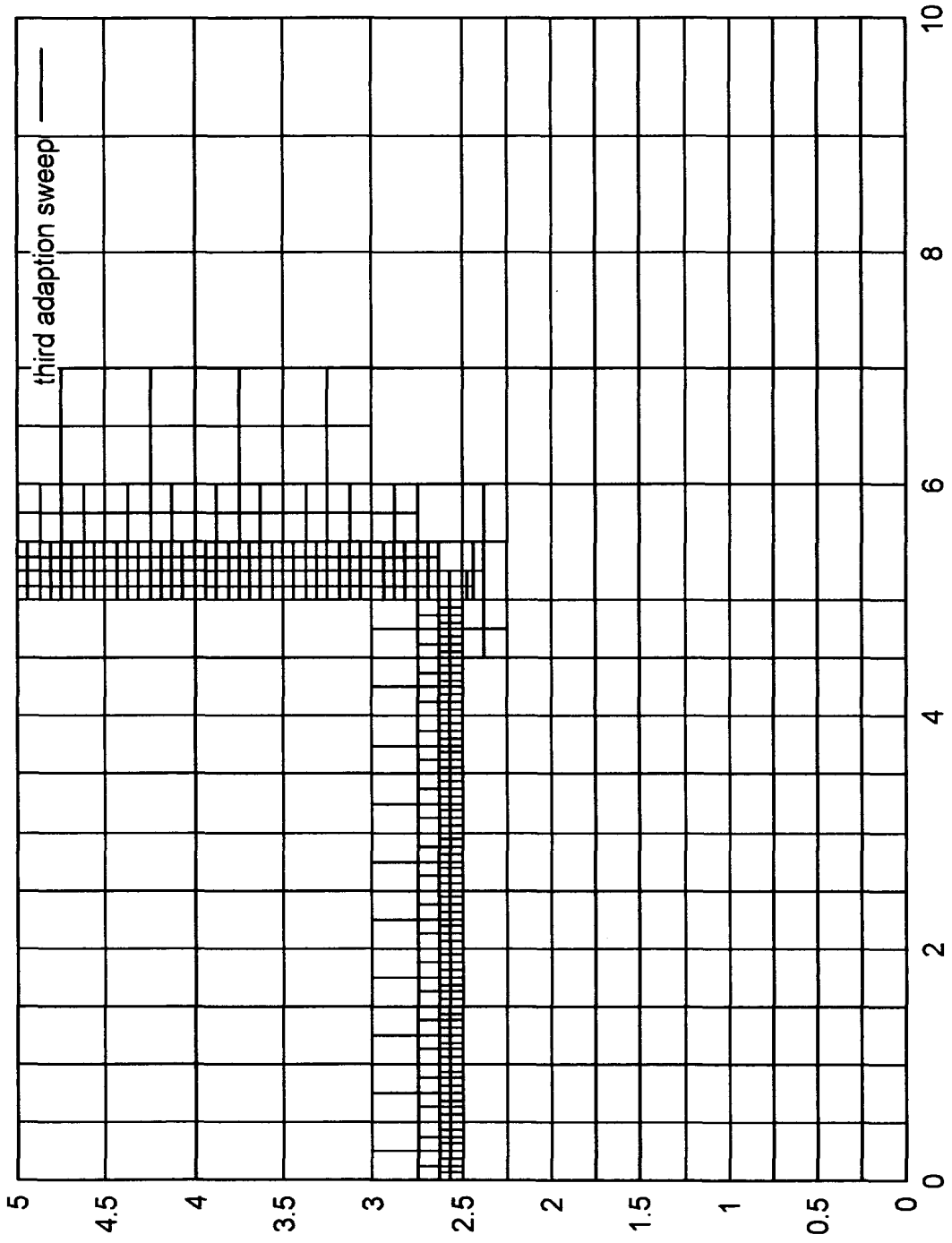


FIG. 29

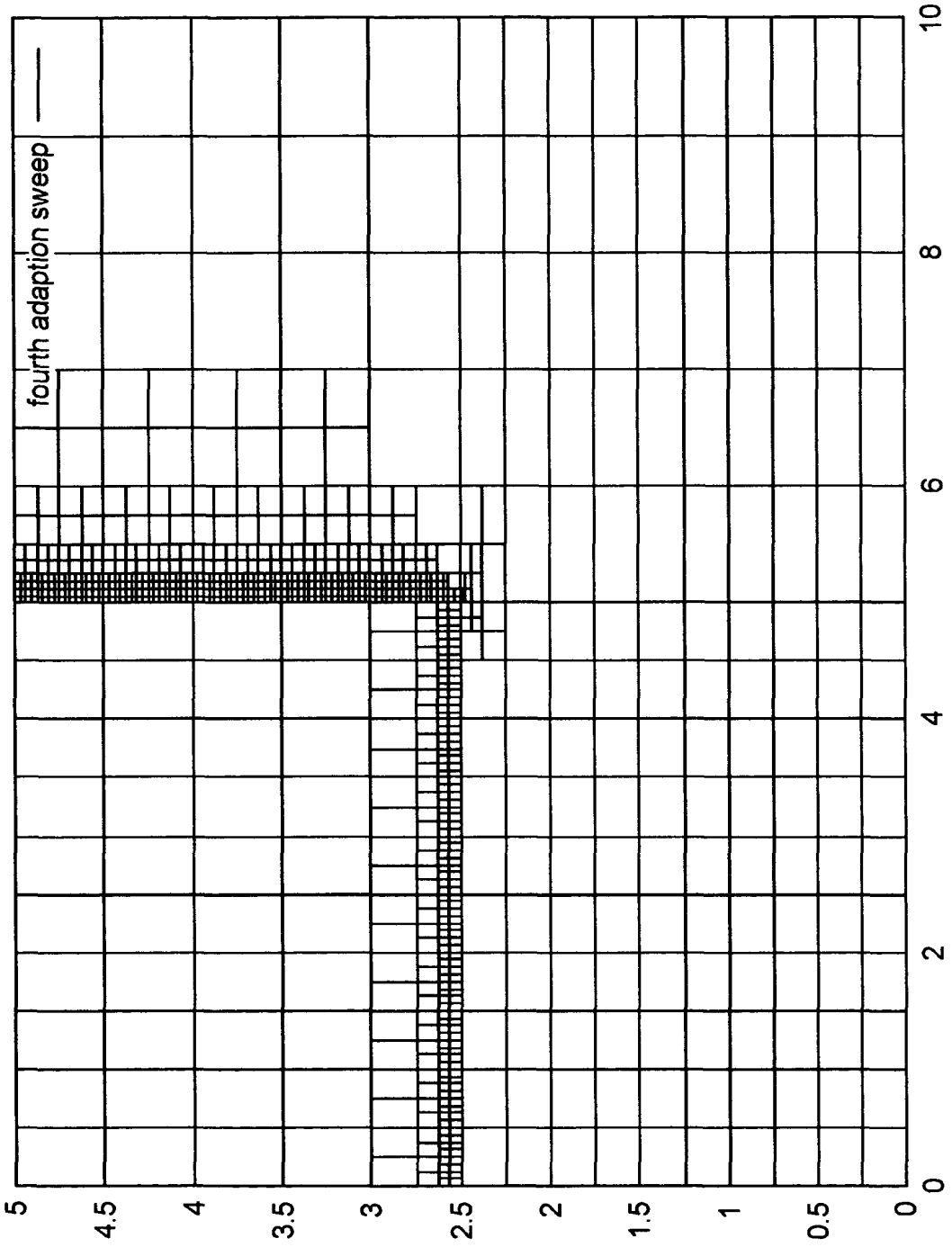


FIG. 30

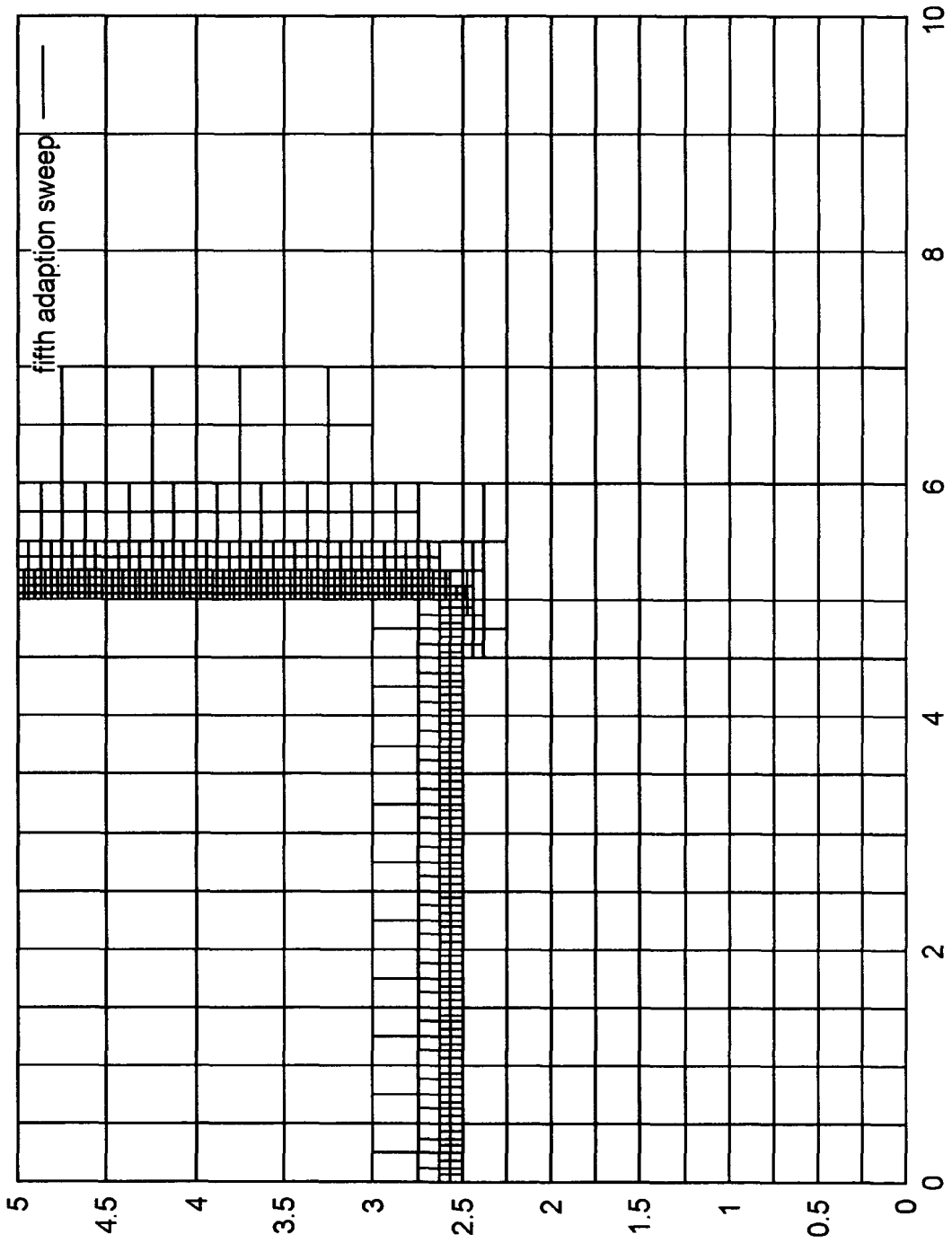


FIG. 31

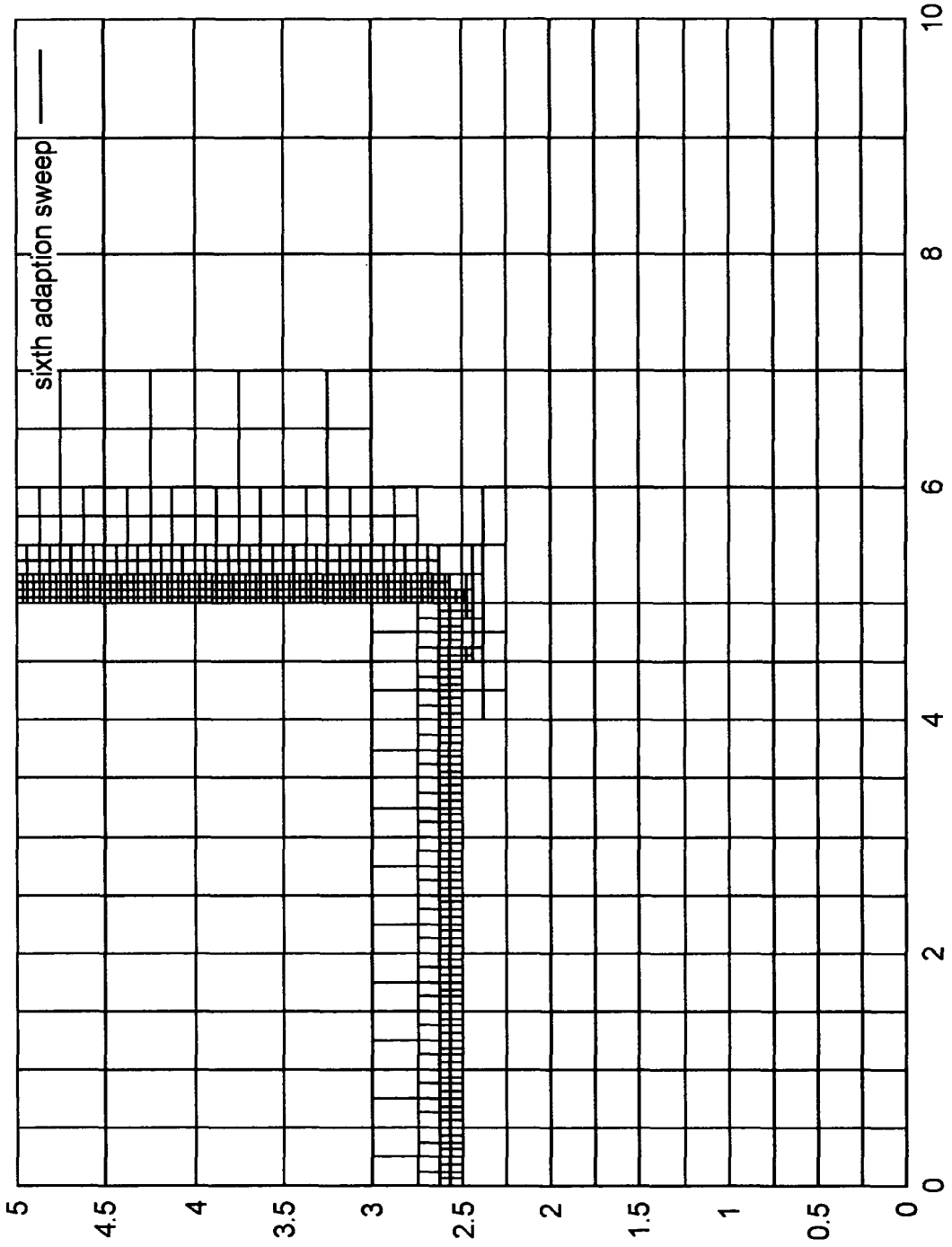


FIG. 32

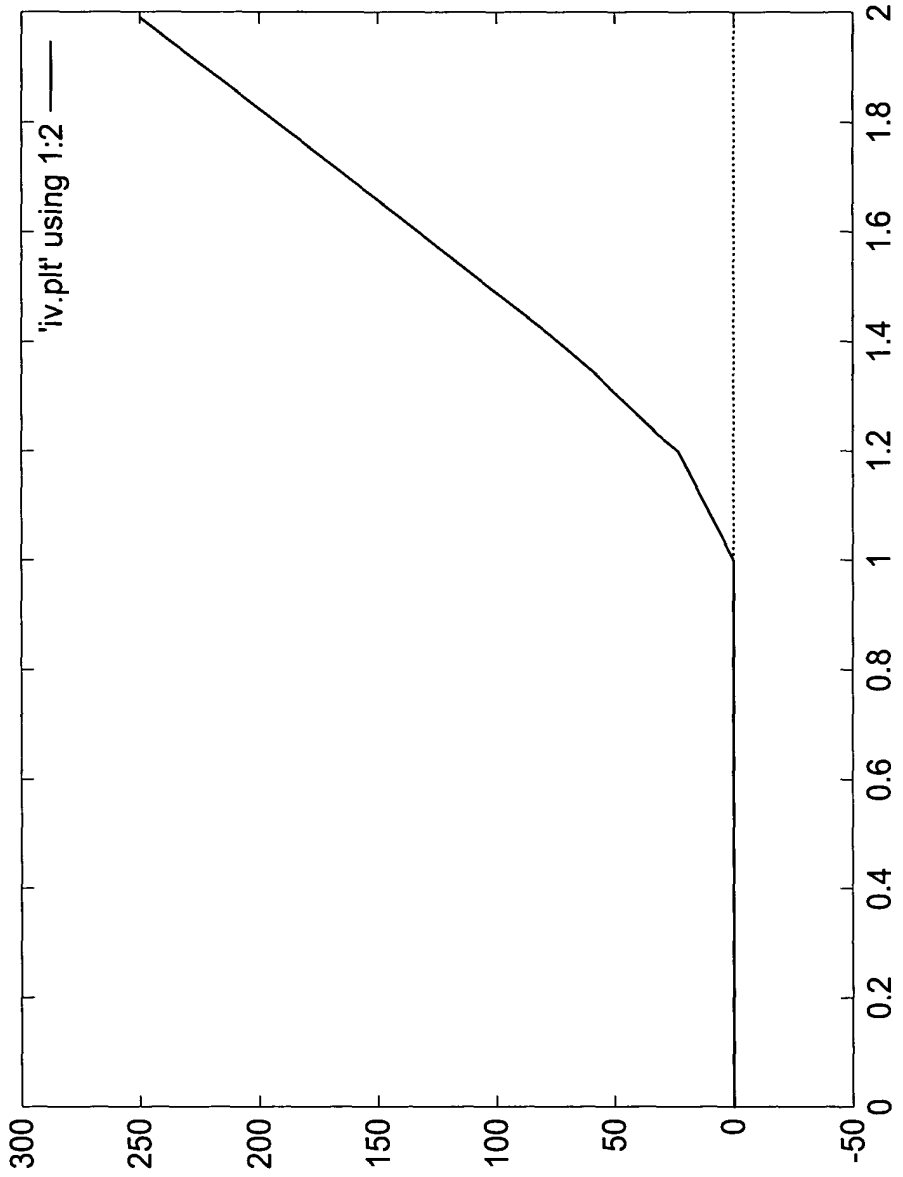

'iv.plt' using 1:2
300
250
200
150
100
50
0
-50
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2

FIG. 33